Yong No LEE*: Taxonomic studies on the genus *Miscanthus* (5) Relationships among the section, subsection and species. Part. 3 Enumeration of species and varieties

李 永 魯*: ススキ属の分類学的研究 (5) 節, 亜節及び種間の類縁 第3部, 種及び変種

Sect. II. Miscanthus

Subsect. II. Miscanthus

A. First glumes 3 nerved, less than 4 mm long.
  B. Main-axis of the inflorescence over two thirds as long as the panicle. First glume glabrous, or nearly so on the back.
    C. Leaves usually over 2 cm wide, ligule membranaceous, rudimentary hairs on the margin. Papillae none on both surfaces of leaf blade... *M. floridulus*
    C. Leaves less than 15 mm wide, ligule membranaceous, hairy. Papillae present on the abaxial surface. ....*M. floridulus* var. *papillatus*
  B. Main-axis of the inflorescence less than one thirds as long as the panicles. First glume pilose on the back. Papillae poorly present on the abaxial side. In Islands of Ryukyu......................*M. floridulus* var. *ryukyuensis*
A. First glume of long pedicelled spikelets 4 to 5 nerved, 3.5 mm long.
  B. Leaves over 20 mm wide. Spikelets 5 mm long, panicle tufted. .... *M. floridulus* var. *malayanus*
  B. Leaves less than 15 mm wide, spikelets less than 4 mm long, panicle not tufted.
    C. Spikelets 4 mm long, papillae not seen on the abaxial, subsidiary cells triangular...*M. floridulus* var. *intermedius*
    C. Spikelets 3.5 mm long, papillae present on the abaxial surface, subsidiary cells dome-shaped. ....*M. floridulus* var. *taiwanensis*

Notes: *M. floridulus* is distributed over the coastal and oceanic areas of southeast tropical to warm temperate zones. The species has smallest spikelets in the genus *Miscanthus*, which are generally 3 to 3.5 mm long. Brown (1931)

---

* Department of Botany, Faculty of Science, University of Tokyo, Hongo, Tokyo. 東東大学理学部植物学教室. Ewha Woman's University, Seoul, Korea. 韓国ソウル梨花女子大学校.

studied the flora of southeastern Polynesia, and described in detail *M. floridulus* based on gross morphology and topographical habitat. The descriptions show that the plants grow in the area of sea-level to 300 m high altitude in Polynesia. Above these coincide with the result of authors review of the specimens which were collected from Formosa, China, and Micronesia. In Phillipines, the plants grow on slopes and along streams at lower and medium altitudes in most of islands and provinces, in Babuyan Islands to Mindanao. Reeder (1948) found the plants from lowlands to the very high altitude of New Guinea. The studies of the habitats may bring a conclusion that a typical form of *M. floridulus* well grow on lowlands and in coastal area instead of high altitude. The floristic and vegetative characters make no great difference by geographical distribution among Micronesia, Polynesia, Formosa, southern China, Phillipines and Pacific coastal zone of Japan. Few varieties were described from Formosan and Malayan specimens in the preceding paper, and suggested that they have been originated by interespecific hybridization.

Miscanthus floridulus (Labill.) Warburg in K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Sudsee 166 (1901).—*Saccharum floridulum* Labill., Sert. Austro. Caled. 13. pl. 18. (1824). —*Miscanthus japonicus* Andersson, in Öfver. Svensk. Vet. Akad. Förh. Stock. **12**: 166 (1855). Hackel in A. et C. de Candolle Monogr. Phan. **4**: 107 (1889) et in Bull. Herb. Boiss. 639 (1889), 526 (1904). Honda Monogr. Poac. Japon. 380 (1930). —*Saccharum polydactylon* var. Thunberg, Fl. Jap. 43 (1794).—*Saccharum japonicum* Thunberg in Trans. Linn. Soc. **2**: 328 (1794) pro parte. —*Miscanthus floridulus* sensu Ohwi, Fl. Japan, 154 (1958) in Warb. —*Miscanthus luzonensis* Andersson l.c. (1855).

Habit: Sea side to mountain zone, 2000 m above sea level.

Distribution: New Guinea, Micronesia, Celebes, Borneo, Java, Malaya, Indo china, Phillipines, Formosa, Southern China, Ryukyu, Honshu area facing pacific ocean.

Specimens. Japan: Owari, T. Makino. Tokyo, Makino 1894. Tsushima, Y. Yatabe 1901, Nakai 1921. Kagawa, Kawasaki 1957. Wakayama, Nakazima 1919. Satsuma, T. Doi No. 123, 1928, Matsumura 1935. Settsu, S. Matsuda 1895. Suruga, Shimizu 1932. Aki, Tuyama 1895. Iki, K. Ohki 1925. Yakushima, Masamune 1928. Formosa: Sharyoto, T. Makino 1896. Subonsya, Owatari 1896. China: Hanchow, Owatari No. (Hack. II. No. 30). Hongkon, Hayata 1917. Kai Mong, Lei et Y.L. Keng. 1935.

Miscanthus floridulus var. **papillatus** Y. Lee in Journ. Jap. Bot. **39**: 120 (1964).

Distribution: Formosa.

Specimens. Formosa: Sharyoto, T. Makino 1896, Sirin, Formosa, Y. Odashima 1932. Buisan, 1934. Taipei, Y. Odashima 1932, (type). Owatari 1897, Suzuki 1936, Hsu 1959, 1960.

Mischanthus floridulus var. **ryukyuensis** (Honda) Y. Lee comb. nov. *Miscanthus ryukyuensis* Honda in Tokyo Bot. Mag. **31**: 58–59 (1937).—*Miscanthus floridulus* Adati in Bull. Fac. Mie. Univ. **17**: 60–61 (1958), non Warb.

Habit: Near seaside of Island of Ryukyu.

Distribution: Islands of Ryukyu.

Specimens. Ryukyu: Naha, C. Guskuma No. 1, 1936 (Type). T. Yamazaki No. 122065, 1963.

Miscanthus floridulus var. **malayanus** Y. Lee in Journ. Jap. Bot. **39**: 120 (1964).

Malaya: Alt. 2000 m, Camero Highland, M. Togashi No. 6222134, 1962, TI.

Miscanthus floridulus var. **intermedius** Y. Lee in Journ. Jap. Bot. **39**: 121 (1964).

Nanfeung Sian, Formosa, S. Okamoto No. 1937. Kyo.

Miscanthus floridulus var. **taiwanensis** Y. Lee in Journ. Jap. Bot. **39**: 121 (1964).

Specimens. Formosa: Kaukaukei, B. Hayata 1916. Noko, Shimada 1918. Buizan, Matuda No. 339. 1919.

Subsect. III. Condensati, Y. Lee. subsect. nov.

A. Callus hairs less than 8.5 mm long. Leaves over 10 mm wide, whitish on the abaxial side. Costal large papillae over the abaxial surface.

B. First glumes 5 to 7 nerved.

C. Leaves 2 to 4 cm wide, costal papillae rounded. Bicellular microhairs 70 μ long. ....*M. condensatus*

C. Leaves less than 1.5 cm wide. Costal papillae elongated. Bicellular microhairs 58 μ long..............................*M. condensatus* var. *boninensis*

B. First glumes 3 to 4 nerved. ....*M. condensatus* var. *intermedius*

A. Callus hairs over 8.5 mm long. Leaves less than 10 mm wide. Costal papillae smaller than the former species........................*M. condensatus* var. *miser*

Notes: *M. condensatus* Hackel resembles *M. sinensis* in the gross morphology.

Makino considered that *M. condensatus* is a variety of *M. sinensis* which grows in the coastal habitat, and many taxonomists followed his taxonomic conception. However, this taxa clearly differs in the anatomical pattern of leaves as pointed out in my previous paper. The gross morphology was reviewed and confirmed the number of veins on the first glume to be 5 to 7 (Fig. 3, 1, 2). The leaf anatomy, the glumes, and the geographical distribution bring a new concept regarding *M. condensatus*. The species is completely independent from *M. sinensis*, and it may be derived from *M. floridulus*. Several varieties are recognized in the areas. *M. condensatus* var. *intermedius*[1] is known to grow on Islands Sulphur, abundantly and robustly. The plant seems to be an intermediate form of 3-nerved glume's taxa and *M. condensatus*. *M. condensatus* has been cultivated for forage grasses in Bonin and Hachijo for a long time. Such practices have produced many variable forms of *M. condensatus*, and may be some of them have escaped from cultivation, and are growing naturally in suitable area. *M. condensatus* var. *miser* and var. *boninensis* have narrow leaves and small culms, and their spikelets are similar to those of *M. sinensis*. But the nerves of glume, and the anatomical patterns of leaves are more closely related to those of *M. condensatus*. It is very likely that those varieties have been adapted to different habitat conditions.

Miscanthus condensatus Hackel in Bull. Boiss. **7**: 639 (1899).—*Micanthus sinensis* var. *condensatus* (Hackel) Makino in Tokyo Bot. Mag. **27**: 254 (1913) et Ill. Fl. Nippon 825 (1955). Honda in Monogr. Poac. Jap. 379 (1930).

Habit: Near sea side of Isl. Hachijo.

Distribution: Isl. Bonin and Honshu.

Specimens. Honshu: Isl. Hachijo, J. Matsumura 1897, Koishikawa Botanical Garden cult. transplanted from Hachijo, J. Matsumura 1899. Isl. Hachijo, T. Nakai 1932, T. Tsuyama 1933, 1938. Isl. Torishima, Izu, Tsuyama 1935. Isl. Aogashima, Fujikawa 1920. Isl. Miyakezima, Hayashi 1937. Isl. Ohshima, J. Matsumura 1909, T. Uchiyama 1900, M. Mizushima 1950. Yawatano, Izu, T. Nakai 1928. Hayama, Sagami, K. Hisauchi 1933. Enoshima, Sagami, T. Nakai 1916, Y. Lee 1963. Inage, Shimosa, T. Nakai 1916. Bonin: Isl. Chichijima, Mukozima, T. Tsuyama 1935. Isl. Hahazima, Chibusayama, T. Tsuyama 1933. Isl. Kitaiouzima, Tatsumi, T. Tsuyama 1935. Isl. Iou, T. Tsuyama 1933.

---

1) The habitat of plants is known by Dr. T. Tuyama's kind help.

Miscanthus condensatus var. **boninensis** (Nakai ex Honda) Y. Lee comb. nov.—*Miscanthus boninensis* Nakai ex Honda in Tokyo Bot. Mag. **13**: 130 (1928), Honda, Mongr. Poac. Japon. 378 (1930). —*Miscanthus sinensis* var. *condensatus* Adati in Bull. Fac. Agr. Mie Univ. **17**: 65-66 (1958), non Makino.

Distribution: Bonin.

Specimens. Bonin: Isl. Bonin, Kawate 1910, Okada 1887. Suzaki, S. Nishimura 1912. Chichizima-Anishima, T. Tuyama 1934, 1935, T. Nakai 1921, Ogura & Honda, 1934, Chichizima-Mukozima, T. Tuyama 1933, 1935.

Miscanthus condensatus var. **intermedius** Y. Lee in Journ. Jap. Bot. **39**: 117 (1964).

Distribution: Bonin: Isl. Kitaiôtô.

Specimens. Isl. Kitaioutô, Kitanohana, T. Tsuyama 1935 (Type). Tatsumi, T. Tsuyama 1935.

Miscanthus condensatus var. **miser** Y. Lee var. nov. —*Miscanthus miser* Nakai in sched. Herb. Univ. Tokyo.

Pilis callis plus 8.5 mm longis, folia angusta minus 10 mm lata; papilla costa humilior.

Distribution: Isl. Miyake, Izu.

Specimens. Isl. Miyakezima, Izu, K. Hayashi No. 45, Aug. 11, 1937. Typus in TI, ibid Kamizukimura K. Hayashi No. 44, Oct. 2, 1937. Isl. Aogashima, N. Matsuzaki 1920.

Sect. III. Kariyasua Ohwi ex Hirayoshi in Res. Bull. Fact. Agr. Gifu Univ. **7**: 9 (1956).

A. Awns over 5 mm long. Second glumes 3 nerved. Bicellular microhairs over 63 μ long.
  B. Callus hairs usually 8.5 to 9 mm long, silky, bicellular microhairs 77 μ long. .... *M. oligostachyus* var. *sinanoënsis*
  B. Callus hairs less than 7 mm long, not silky, bicellular microhairs less than 70 μ long.
    C. Awns 12 mm long, callus hairs 5 to 6 mm long, first glumes 7 mm long. Leaves 8 to 13 mm wide, 20 to 40 cm long. Stomata 25 μ long, 15 μ wide. .... *M. oligostachyus*
    C. Awns 5 mm long, callus hairs 5 to 7 mm long. First glumes 6.5 mm long. Leaves 12 to 25 mm wide, 40 to 50 cm long. Stomata 32 μ long, 19 μ wide.. *M. oligostachyus* var. *intermedius*

A. Awns less than 5 mm long. Second glumes 5 to 7 nerved. Bicellular microhairs 45 to 49 μ long.

- B. Awns excerted from spikelets 4 mm long. Callus hairs 6 mm long. First glumes 5 mm long, 5 to 7 nerved. Leaves 6 to 7 mm wide, glabrous on the both surfaces. ....*M. Changii*
- B. Awns not exserted from the spikelets, 1.5 mm long. Callus hairs 3.5 mm long. First glumes 5 to 6 mm long, 5 to 7 nerved. Leaves 10 to 15 mm wide, 30 to 45 cm long. Callus hairs none on the abaxial surface. .... *M. tinctorius*

Notes: *M. oligostachyus* grows on mountains from Kyushu to Kanto of Japan facing the Pacific Ocean, while *M. tinctorius* is distributed to Kinki, middle Honshu and southern Tohoku facing the Japan Sea. *M. oligostachyus* var. *intermedius* is found in northern Honshu of Japan and South Korea. *M. Changii* is newly reported from Kapyong of Korea. All the species above mentioned are much alike to each other in their gross morphology and leaf anatomy. Hirayoshi suggested that the *M. oligostachyus* var. *intermedius* might be derived from an amphiploidal hybrid between *M. oligostachyus* and *M. tinctorius*. *M. oligostachyus* var. *intermedius* show intermediate characters in awns and leaves, but it presents polyploidal bigger characters of *M. oligostachyus*. The author examined the nerves of glumes in Kariyasua and recognized 3 in number on the second glume of *M. oligostachyus* and *M. oligostachyus* var. *intermedius*, but 5 nerves were counted on the second glume of *M. tinctorius* and *M. Changii*. The karyotype is slightly different between *M. tinctorius* and *M. oligostacyhus*. While *M. oligostachyus* var. *intermedius* showed the karyotype not basically different from *M. oligostachyus* except the auto-polyploidal phenomena. The number of nerves on second glumes and the karyotype suggests that *M. oligostachyus* var. *intermedius* might be derived from *M. oligostachyus* instead of an amphiploidal hybrid origin. The gross morphology also suggests that *M. tinctorius* is presumably more advanced than *M. oligostachyus*.

Miscanthus oligostachyus Stapf. in Bull. Misc. Inform. Kew 227 (1898). Honda Monogr. Poac. Japon. 390 (1930). Ohwi in Act. Phytotax. Geobot. **11**: 150 (1942). —*Miscanthus Matsumurae* Hackel in Bull. Boiss. **7**: 640 (1899) et **2**: 552 (1904). —*Miscanthus tinctorius* Hackel var. *aristata* Makino ex Honda, in Monogr. Poac. Jap. 390 (1930) pro syn. —*Miscanthus oligostachyus* Stapf forma *ciliatus* Hiyama in Journ. Jap. Bot. **19**: 226 (1943).

Habit: Mountain foot to mountain meadow.

Distribution: Kyushu, Shikoku, and Honshu facing to Pacific Ocean.

Specimens. Japan: Mt. Fuji, J. Matsumura No. 79, 1881, 1891. H. Kanai 1957. Nikko, Matsumura 1884, H. Ito, Ohwi & Okamoto No. 291, 1951. M. Mizushima 1952. Hakone, Mizushima 1947. Nasu, Saito No. 6, 1930. Mizushima 1946. Tanzawa, Sagami, Momiyama No. 421, 1922. Shinano, Ohwi No. 47, 1930, Musashi, Y. Yabe 1899. Mt. Tsukubasan, Hitachi, Muramatsu 1922. Misaka, Kai, Kanai 1955, H. Uematsu 1947. Mitsutoge, Kai, K. Hisauchi No. 865, 1934, Mt. Shirane, Kai, Goto 1904, Suruga, Abetoge, T. Yamazaki 1954. Rikuzen, S. Kusano 1899. Bonbori, Musashi, K. Hisauchi 1930. Mt. Kurotaki, Sekimoto 1936. Yasyazin pass, T. Yamazaki No. 3759, 1956, Nobeyama, Kai, Sato No. 407, 1959. Ontake, M. Mizushima 1946. Mt. Aso, J. Matsumura 1938. Ogawa No. 12, 1928. Kirishima, Kyushu, Makino 1882, T. Doi No. 72, 1927, Mayebara No. 367, 1928.

Miscanthus oligostachyus Stapf var. **intermedius** (Honda)Y. Lee comb. nov. —*M. longiberbis* (Hack) Nakai in Bot. Mag. Tokyo. **31**: 12 (1917).—*M. intermedius* (Honda) Honda in Nakai, Icon. Pl. Asia. Orient. **1**: 64 (1936), t. 29 et Honda, Nom. Pl. Jap. 425 (1939), 314 (1957). Ohwi, Fl. Jap. 154 (1953).—*M. longiberbis* Nakai var. *intermedius* Honda in Bot Mag. Tokyo **27**: 296 (1933).—*M. tinctorius* var. *intermedius* (Honda) Ohwi in Act. Phytotax. Geobot. **11**: 150 (1942). —*M. longiberbis* (Hackel) Nakai in Bot. Mag. Tokyo **31**: 12 (1917).

Distribution: Honshu area facing to Japan Sea in Japan and Korea.

Specimens. Japan: Ugo, Yuzawa, Y. Satake No. 321, 1932. Uzen, Gassan, F. Kunori 1934. Uzen, Ginzan, C. Suzuki 1936. Echigo, Ooshirakawa, Y. Yamazaki 1962. Echigo, Yuzawa, T. Sato No. 7914, 1952. Kozuke, Shimizutoge, T. Momiyama 1951. Kozuke, Minakami, K. Hisauchi 1933. Korea: Tsioo-enli, K. Uchiyama 1902.

Miscanthus oligostachyus Stapf var. **shinanoensis** Y. Lee in Journ. Jap. Bot. **39**: 117 (1964).

Kirigamine, Shinano, Japan, H. Tobita No. 60, 1936.

Miscanthus Changii Y. Lee in Journ. Jap. Bot. **39**: 115 (1964).

Distribution: Kapyong, Korea.

Specimens. Mt. Tenma foot, Kapyong, Korea, Chang Heungdu, No. 272, 1947, TNS.

Miscanthus tinctorius (Steudel) Hackel in Bull. Herb. Boiss. **7**: 639 (1899). Nakai in Bot. Mag. Tokyo **31**: 10 (1917). Honda, Nom. Pl. Jap. 426 (1939) et 314 (1957). Ohwi in Act. Phytotax. Geobot. **11**: 150 (1942)—*Saccharum tinctorium* Steudel, Synops. Glum. **1**: 469 (1854), ex Hooker et Jackson, Ind. Kew. **2**: 774 (1895).—*Saccharum obscurum* (non Trinius) Steudel, l.c. 407.—*Miscanthus sieboldii* Honda, Monogr. Poac. Jap. 392 (1930).—*Miscanthus obscurus* Jackson ex Koizumi, Fl. Symb. Orient. Asiat. 81 (1930).

Habit: Area about 1000 to 1500 m above sea level of mountain.

Distribution: Honshu area facing to Japan Sea in Japan.

Specimens. Japan: Komagatake, Shinano, Y. Yatabe No. 80, 1880. Hakusan, T. Nakai 1870. Mt. Shirouma, Shinano, 1900. Ibuki, K. Hisauchi 1935, Nakai 1869, 1875. Mt. Kammuri, Echizen, Hosoi No. 19, 1935, No. 85, 1936. Omugawa, Kai, Arao. Nishishirakawa, Saito No. 1533, 1936. Tajimi, Mino, Shioda 1929. Aizu, J. Matsumura 1879. Tanba, Y. Araki No. 1422, 1933, No. 13557, 1935. Tango, Araki No. 1086, 1932. Hida, Honda 1925. Mt. Shirouma, H. Kanai 1959, Hsu 1961. Nasu, Sekimoto 1938. Mt. Yamamoto, Oumi, Hashimoto, 1941. Imazu, Oumi, Hashimoto 1941. Oohara, Oumi, Hashimoto 1941.

Sect. IV. Diandra, Keng, Flora Ill. Plant. Sinic. Gramineae 751 (1959).

A. Callus hairs yellow brown, 10 mm long. Spikelets 2 to 2.5 mm long. .... *M. nepalensis*

A. Callus hairs less than 5 mm long.
  B. First glume 7 to 9 nerved, and second glume 5 nerved.......*M. eulaliodes*
  B. First glume 5 to 7 nerved.
    C. Spikelets 4 to 4.5 mm long.
      D. Second glume one nerved. ....*M. szechuanensis*
      D. Second glume 5 nerved, first glume 5 to 6 nerved.......*M. brevipilus*
    C. Spikelets 5 to 5.5 mm long, callus hairs 2 to 3 mm long.......*M. nudipes*

Notes: The gloss morphology of Diandra is based mostly on Keng's description in 1959 (Fig. 3. 3).

Miscanthus nepalensis (Trin.) Hack. in DC., Monogr. Phan. **6**: 104 (1889) —*Eulalia nepalensis* Trin. in Mém. Acad. Sci. Pétersb. **6**-2: 333 (1832).

Habit: Open places in hill.

Distribution: Himalayas, Burma, and western China.

Specimens. India: Darjeeling, Tateoka No. 286, 1957.

Miscanthus eulaliodes Keng in Sinensia **10**: 288 (1939).

Miscanthus szechuanensis Keng, Flora Ill. Plant. Sinic. Gramineae 754 (1959).

Miscanthus brevipilus Hand-Mazz in Symb. Sin. Pt. **7**: 1306 (1936).

Miscanthus nudipes (Giseb.) Hackel in C. de Condolle Monogr. Phan. **6**: 109 (1889).

Miscanthus taylorii Bor in Kew Bull. 273 (1953).

摘　　要

本報にてはススキ属の種，変種および品種について筆者の所見によりまとめ検索と名いによってあらわした。標本を見ることが出来なかったものは記載によるもので他日あらためて勉強したい。終りに色々とお世話になった東京大学理学部植物学教室の原寛教授に心からお礼申し上げるとともに御援助下さった方々に深謝します。

Cited literature

1. Thunberg, C., Trans Linn. Soc. **2**: 328 (1794). 2. Andersson, N.J., Oefv. Svensk. Vet. Akad. Fôrh. Stock. **7**: 165 (1856). 3. Hackel, E., Andropogoneae in Dec. A. Monogr. Phanero., Paris, **6** (1889). 4. Nakai, T., Bot. Mag. Tokyo, **31**: 9–17 (1917). 5. Steudel, E.G., Synopsis plant. glumacea. **2**: 1–475 (1854–1855). 6. Honda, M., Monogr. poac. Japonic., Jour. Fac. Sci. Imp. Univ. Tokyo, Sect. 3, Bot. 3, **1**: 484 (1930). 7. Ohwi, J., Gramina Japonica 6, Act. Phytotax. Geobot. **11**: 145–151 (1942). 8. Ohwi, J., Flora of Japan, Tokyo, 1–1380, (1953). 9. Bor, N.L., The grasses of Burma, Ceylon, India, and Pakistan, Pergamon, Press, 1–769 (1960). 10. Keng, Y.L., Flora Illustralis Plantarum Primarum Sinicarum—Gramineae 1–799 (1959). 11. Avdulov, N.P., Karyosystematische Untersuchung der Familie Gramineen, Bull. Appl. Bot. Genet. Pl. Breeding, **43**: 1–428 (1931). 12. Church, G.L., Meiotic phenomenon in certain Gramineae 2, Paniceae and Andropogoneae, Bot. Gaz., **88**: 63–84 (1929). 13. Takizawa, S., Chromosome constitution of the genus *Miscanthus* Anderson, La Kromosome, **14**: 509–517 (1952). 14. Hirayoshi, I., K. Nishikawa, R. Kato and M. Kitagawa, Cytological studies on forage plants, 3, Chromosome numbers in *Micanthus*, Jap. Journ. Breeding, **5**: 49–50 (1955). 15. Adati, S., and S. Mitsuishi, Wild growing forage plants of the Far East, especially Japan, suitable for breeding purposes, 1. Karyological study in *Miscanthus*, 1. Bull. Fac. Agr. Mie Univ., **12**: 1–10 (1956). 16. Adati, S., Studies on the genus *Miscanthus* with special reference to the Japanese species suitable for breeding purposes as fodder crops, Bull. Fac. Agr. Mie Univ., **17**: 1–112 (1958). 17. Li, H.W., and T.H. Ma, List of the sugarcane varieties and sugarcane relative plants, reports Taiwan Sugar

Exp. Sta., **7**: 47-53 (1951). 18. Adati and Shiotani, The cytotaxonomy of genus *Miscanthus* and its phylogenic status, Bull. Fac. Agr. Mie Univ., **25**: 1-24 (1962). 19. Metcalfe, C.R., Anatomy of the monocotyledons, 1, Gramineae, Oxford, 1-731 (1960). 20. Keng, Y.L., The gross morphology of Andropogoneae, Sinensia, **10**: 274-343 (1939). 21. Hartley, W., Studies on the origin, evolution, and distribution of Gramineae 1, The tribe Andropogoneae, Austral Journ. Bot. **6**: 116-128 (1958). 22. Komarov, V.L., Flora of the U.S.S.R. 2, (Translated from Russian), 1-622 (1963). 23. Hemsley, W., Index Florae Sinensis **3**: 347-48 (1905). 24. Steward, A.N., Vascular plants of the lower Yangtze Valley China. Oregon State Coll., Corvallis, 1-579 (1952). 25. Chung, I., Manual of the grasses of Korea, Univ. of Michigan, (unpublished), (1954). 26. Park, M., An Enumeration of Korean Plants, 1-340 (1949). 27. Chung, T., Korean Flora, Shinji-sha, 1-1025 (1955). 28. Brown, F.B.H., Flora of Southeastern Polynesia, 1, Monocotyledons Museum Bull., **84**: 56-57 (1931). 29. Hosokawa, T., Phytogeographical relationship between the Bonin and Marianne Islands laying stress upon the distribution of the Families Genera and Special species of their vernacular plants, Journ. Soc. Trop. Agr. 6, **4**: 683-703 (1934). 30. Masamune, G., Enumeratio Phanerogamarum Bornearum, 17 (1942). 31. Merrill, E.D., An enumeration of Philippine flowering plants 1, Fascle 1, 31, (1922). 32. Masamune, G., Short flora of Formosa, Kudoa, 1-401 (1936). 33. Hatushima, S., and Amano T., Flora of Okinawa, Univ. of Ryukyu, 1-190 (1958). 34. Ridley, H.N., Materials for a flora of the Malayan Penninsula, 118-97 (1907). 35. Camus, E.G., & A. Camus, Gramineae in H. Lecomte, Flore Générale de l'Indo-China, **7**: 202-649 (1922). 36. Dunn and W.J. Tutcher. Flora of Kwangtung and Hongkong. Kew Bull. of Misc. Inform. Add. Ser. **10**: 319 (1911). 37. Reeder, J., Gramineae Panicoideae of New Guinea Journ. Arnold Arbor. **29**: 321-392 (1948).

□植物採集ニュースの紹介　奥山春季氏が監修されたこの刊行物は，1962年の創刊以来順調にすすんで，今年に入ってから，No. 11-14 の 4 号が発行され，会員も 400 に近くなった。日本列島はずいぶん自然科学的には開発され終ったようにみえるが，まだまだ不知の地区は多いし，再整理を要する部類も多いから，この刊行物にのるデータが役立つ面は広いと思われる。分布を中心にした記事が主になっていて，会費年 300円。事務所は東京都新宿区若松町121。第 1 巻の総目録が出て，第2巻からは月刊になるという。発展を祈る。　（前川文夫）